



## Legal Issues

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 prohibit discrimination against individuals with disabilities. According to these laws, no otherwise qualified individual with a disability shall, solely by reason of his/her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity of a public entity.

“Qualified” with respect to postsecondary educational services, means “a person who meets the academic and technical standards requisite to admission or participation in the education program or activity, with or without reasonable modifications to rules, policies or practices; the removal of architectural, communication or transportation barriers; or the provision of auxiliary aids and services.”

“Person with a disability” means “any person who 1) has a physical or mental impairment which substantially limits one or more major life activities [including walking, seeing, hearing, speaking, breathing, learning, and working], 2) has a record of such an impairment, or 3) is regarded as having such an impairment.” Disabilities covered by legislation include hearing impairments, learning disabilities, psychiatric disorders, speech impairments, mobility impairments, and visual impairments.

## Accommodations and Universal Design

### Accommodations

The student with a disability is the best source of information regarding necessary accommodations. In post-secondary settings it is the student’s responsibility to request disability-related accommodations, but a faculty member can include a statement on the class syllabus inviting students who have disabilities to discuss academic needs. An example of such a statement is “If you wish to discuss academic accommodations, please contact me as soon as possible.” On most campuses an office that supports students with disabilities informs instructors of reasonable accommodations for specific students.

### Universal Design

Universal design has been defined as “the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design” ([http://www.design.ncsu.edu/cud/univ\\_design/ud.htm](http://www.design.ncsu.edu/cud/univ_design/ud.htm)). Applications of universal design are described in *Universal Design* at <http://www.washington.edu/doit/Resources/udesign.html>.

Universal design principles can be applied to the overall design of instruction as well as to specific instructional materials and strategies to improve access for everyone. For example, captions on multimedia benefit students with hearing impairments, those whose first language is not English, and people with some types of learning disabilities. Examples of how universal design of instruction can improve class climate; physical access, usability, and safety; delivery methods; information resources; interaction; feedback; and assessment can be found in *Equal Access: Universal Design of Instruction* at [http://www.washington.edu/doit/Brochures/Academics/equal\\_access\\_udi.html](http://www.washington.edu/doit/Brochures/Academics/equal_access_udi.html). Universal design minimizes, but does not eliminate the need for accommodations.

## Examples of Academic Accommodations

Following are examples of specific disability-related accommodations that students and educators have used successfully.

Low Vision	<ul style="list-style-type: none"> <li>• Seating near front of class</li> <li>• Large print handouts, lab signs, and equipment labels</li> <li>• TV monitor connected to microscope to enlarge images</li> <li>• Class assignments made available in electronic format</li> <li>• Computer equipped to enlarge screen characters and images</li> </ul>
Blindness	<ul style="list-style-type: none"> <li>• Audiotaped, Brailled or electronic-formatted lecture notes, handouts, and texts</li> <li>• Verbal descriptions of visual aids</li> <li>• Raised-line drawings and tactile models of graphic materials</li> <li>• Braille lab signs and equipment labels, auditory lab warning signals</li> <li>• Adaptive lab equipment (e.g., talking thermometers and calculators, light probes, and tactile timers)</li> <li>• Computer with optical character reader, speech output, Braille screen display and printer output</li> </ul>
Hearing Impairment	<ul style="list-style-type: none"> <li>• Interpreters, real-time captioning, FM systems</li> <li>• Notetakers</li> <li>• Captioned films</li> <li>• Visual aids</li> <li>• Written assignments, lab instructions, summaries, notes</li> <li>• Use of electronic mail for class and private discussions</li> <li>• Visual warning systems for lab emergencies</li> </ul>
Learning Disability	<ul style="list-style-type: none"> <li>• Notetakers and/or audio-taped class sessions</li> <li>• Captioned films</li> <li>• Extra exam time; alternative testing arrangements</li> <li>• Visual, aural, and tactile instructional demonstrations</li> <li>• Computers with voice output, spellchecker, and grammar checker</li> </ul>
Mobility Impairment	<ul style="list-style-type: none"> <li>• Notetakers, lab assistants, group lab assignments</li> <li>• Classrooms, labs, and field trips in accessible locations</li> <li>• Adjustable tables; lab equipment located within reach</li> <li>• Class assignments made available in electronic format</li> <li>• Computers equipped with special input device (e.g., voice input, alternative keyboard)</li> </ul>
Health Impairment	<ul style="list-style-type: none"> <li>• Notetakers</li> <li>• Flexible attendance requirements</li> <li>• Extra exam time</li> <li>• Assignments made available in electronic format</li> <li>• Use of email to facilitate communication</li> </ul>

## Useful Teaching Techniques

Below you will find examples of teaching techniques in the classroom, laboratory, examinations, and field work that benefit all students, but are especially useful for students who have disabilities.

### Classroom

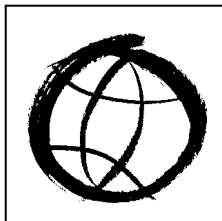
- Select course materials early so that students and the campus disabled student services office have enough time to translate them to audiotape, Braille, and/or large print.
- Make syllabi, short assignment sheets, and reading lists available in electronic format (e.g., CD, electronic mail, WWW).
- Design course web page to be accessible to students with disabilities. For further information, refer to: <http://www.washington.edu/computing/accessible/howto.html>
- Face the class when speaking. Repeat discussion questions.
- Write key phrases and lecture outlines on the blackboard or overhead projector.

### Laboratory

- Take a student on a tour of the lab he/she will be working in. Discuss safety concerns.
- Assign group lab projects in which all students contribute according to their abilities.
- Arrange lab equipment so that it is accessible to and usable by everyone.
- Give oral and written lab instructions.

### Examination and Fieldwork

- Assure that exams test the essential skills or knowledge needed for the course or field of study.
- Some students will require extra time to transcribe or process test questions; follow campus policies regarding extra time on examinations.
- Consider allowing students to turn in exams via electronic mail.
- Attempt to include all students in field opportunities, rather than automatically suggesting non-field work alternatives for students with disabilities. Ask students how they might be able to do specific aspects of field work.
- Include special needs in requests for field trip vehicle reservations.



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#### Videos

The videos, *Working Together: Faculty and Students with Disabilities*, *Building the Team: Faculty, Staff, and Students Working Together*, and *Equal Access: Universal Design of Instruction* may be purchased from DO-IT and freely viewed at <http://www.washington.edu/doit/Video>.

#### About DO-IT

DO-IT (Disabilities, Opportunities, Internetworking and Technology) serves to maximize the success of students with disabilities in challenging academic programs and careers. This publication and the related materials and videos were primarily funded by NEC Foundation of America, US WEST Communications, the National Science Foundation, the State of Washington, and the U.S. Department of Education as part of DO-IT. For more information, to be placed on the DO-IT mailing list, or to request materials in an alternative format, contact:

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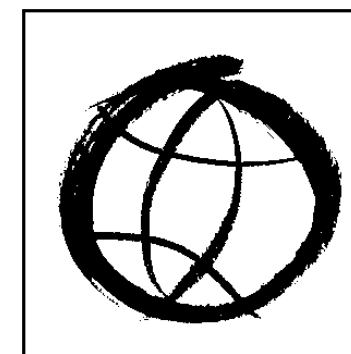
509-328-9331 (voice/TTY) Spokane

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### Campus Resources

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